

Connecting Families: New Technologies, Family Communication, and the Impact on Domestic Space

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1. INTRODUCTION

Computer-mediated communication (CMC) has been a longstanding focus of study in the fields of HCI and CSCW dating back to the first incarnations of the media space in the early 1980s [4]. Since then, this research sphere has explored many different forms of technology ranging from teleconferencing to email and instant messaging. The early focus of this work was largely workplace-oriented where researchers focused on improving and understanding workplace communication practices. However, over the last decade, there has been an increasing focus on studying computer-mediated communication in the home.

In the domestic realm, the goal of computer-mediated communication research is to understand the communication practices of families both within and extending outside of the home as family members seek to communicate, coordinate, and connect with their loved ones and friends. Our focus is on technologies that allow family members to directly connect with one another either synchronously (e.g., video conferencing) or asynchronously (e.g., instant messaging), as opposed to technologies where one broadcasts or shares information with many (e.g., social networking sites). Here research typically aims to support communication between parents, children, grandparents, and close friends.

As examples, research in this space has spanned many areas of study including the role of locations within the home [3], distributed-family communication [2,5], organizing systems [16], family awareness [13], video conferencing practices [1,7,9], and mobile media [12]. Similarly, it has seen the design of many new technologies to support family routines, such as Digital Family Portraits [11], the Remote Presence Lamp [17], VideoProbe [6], Home Note [14], and the Family Window [8].

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Computer-mediated communication for the home has also now moved out of the research lab and into actual everyday practice. Computing technologies are rapidly changing the way families can communicate, coordinate, and connect with others through readily-available (and often free) applications, such as Google Talk, Skype, or iChat. The accessibility and proliferation of these applications means that family members are increasingly faced with new mechanisms to reach out and connect with their family and friends. For this reason, technology is now rapidly reconfiguring the way we think about and design for domestic spaces. As it does so, researchers now must directly confront issues of family relations and the subtle negotiations that are part of that realm. “Connection” can be emotionally expressive or merely informational. Analytic frameworks as well as technologies developed to support work may not be appropriate for understanding this setting.

2. OBJECTIVE

The objective of this workshop is to bring together researchers, designers, and practitioners who study family practices or domestic technology design with a particular emphasis on mediating family communication within the home and also between homes. We want to build community around this topical area, explore the themes of this research over the last decade, and discuss the relevant research themes of the next decade. We also wish to discuss possibilities for a follow-on special journal issue or book on the topic.

3. INTENDED PARTICIPANTS

Intended workshop participants include academics, industrial researchers, designers, software developers and other practitioners who actively work in the area of computer-mediated communication in the domestic realm. Suggested topics include, but are not limited to:

- family coordination
- family communication
- video communication
- communication across time zones
- social relations in families
- analytic frameworks for ICT in the domestic realm
- domestic awareness appliances

We also seek participation by representatives from the major industrial players in this space, including Nokia, Google, Skype, Microsoft, Apple, Cisco, etc.

4. WORKSHOP DESCRIPTION

Workshop participants will be selected based on refereed submissions. We will solicit 2-4 page position papers (CHI extended abstract format) and expect to accept 15-20 participants. Authors will be asked to direct their paper at describing their area of research as it relates to domestic computer-mediated communication along with the future direction they see research in this space taking. We also ask that authors include short biographies for each of the position paper's authors. We expect that only one author for each paper will participate in the workshop, though we may be able to accommodate a small number of special requests.

The workshop will be a full day with the following tentative workshop schedule:

Introduction: Workshop organizers will introduce themselves and present the workshop goals and schedules to attendees.

Morning Session: A selection of attendees will provide 8-10 minute presentations of their research or design work. We will select presenters who will provide a broad range of application areas, methodologies, and perspectives. These presentations will foster discussion points for synthesis discussions later in the day.

Early Afternoon Session: Attendees will break into subgroups to discuss and identify the primary themes of research in domestic computer-mediated communication over the last decade. They will also identify the research trajectories of importance for the next decade. This session may be accompanied by some brainstorming and/or analysis activities such as affinity diagramming.

Late Afternoon Session: Attendees will come together and the organizers will lead a discussion around the themes that were identified in the preceding discussions. They will also discuss possibilities for a follow-on special journal issue or edited book.

5. RESOURCES

We will require a digital projector, power strips and associated electricity, and Internet connectivity.

6. REFERENCES

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7. ORGANIZER BIOGRAPHIES

Carman Neustaedter, Kodak Research Labs

Dr. Carman Neustaedter is a Research Scientist at Kodak Research Labs in the Multimedia Systems group. His main research interests are in human-computer interaction with special interests in computer-supported cooperative work, ubiquitous computing, and domestic computing. In these areas, he seeks to understand the socio-technical factors of ubiquitous technology design to support the everyday social practices of individuals and groups. Many of Carman's projects have focused on designing for families, including studies of domestic media spaces, digital and print photos, family calendars, and family communication information. Carman is also an Assistant Professor in the School of Interactive Arts + Technology at Simon Fraser University in Canada. Here he teaches graduate and undergraduate students human-computer interaction design and research methodologies. Carman previously co-organized a Designing for Families workshop at CSCW 2008, a follow-up SIG at CHI 2009, and a workshop at CHI 2010 on transitioning between requirements analysis and design.

Tejinder Judge, Virginia Tech

Tejinder Judge is a PhD candidate in the Center for Human-Computer Interaction at Virginia Tech. Her research interests are in human-computer interaction with a focus on domestic computing, computer mediated communication, computer-supported collaborative work, design, and design methodologies. Her dissertation research focuses on understanding the implications of domestic media spaces on communication, connectedness and awareness between families separated by distance. Tejinder is involved in ongoing projects that include designing collaborative tools for designers and developing a methodology to aid designers in transitioning from contextual analysis, to the design of a new system. She co-organized a workshop at CHI 2010 on the transition between contextual analysis and design.

Steve Harrison, Virginia Tech

Prior to joining Virginia Tech, he was at Xerox PARC where he developed the first media space. That work focused on collaborative work but was driven out of an interest in the social aspects of space and place. He has recently edited the book, *Media Space: Twenty+ Years of Mediated Life*, which brings together many of its key ideas. His current work extends those research interests to the domestic realm. Mr. Harrison was the CHI 2006 Workshop Chair and has been an organizer of workshops at CSCW (which resulted in the Media Space book) and at CHI.

Abigail Sellen, Microsoft Research Cambridge

Abigail Sellen is a Principal Researcher at Microsoft Research Cambridge in the UK and co-manager of Socio-Digital Systems, an interdisciplinary group with a focus on the human perspective in computing. Her group has, since its inception five years ago, conducted research into family communication, home videoconferencing, home archiving and other aspects of the domestic space. This has resulted in many publications, as well as a number of different technology prototypes, some of which are now being developed into products. Abigail has published on many other topics in HCI including two books, "Video-Mediated Communication" and "The Myth of the Paperless Office". She holds 23 patents and was recently elected a Fellow of the British Computer Society. In August, 2009, she became a Special Professor of Interaction at the University of Nottingham.

Xiang Cao, Microsoft Research Cambridge

Xiang Cao is an associate researcher in the Computer-Mediated Living Group at Microsoft Research Cambridge and a research fellow at Corpus Christi College in the University of Cambridge. His research spans a variety of areas in Human-Computer Interaction (HCI), such as novel interaction technologies beyond desktop computing, computer-supported cooperative activities, user performance modelling, and applications of computer vision techniques in HCI. Before joining Microsoft, he also worked at several other research labs such as in IBM, Intel, and Siemens. He received his PhD from the Department of Computer Science at University of Toronto.